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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : May 5, 2007  
Jack Gin, : Group Art Unit: 2624  
Serial No.: 10/629,697 : Examiner: Desire, Gregory M.

**Title: ROTATABLE BAY WINDOW SWITCH BOX SURVEILLANCE  
CAMERA AND ILLUMINATOR FOR FACIAL RECOGNITION**

RESPONSE TO OFFICIAL ACTION OF 02/05/2007

SUBMISSIONS RE CLAIMS

The invention is NOT rendered obvious by Kajino. A camera that is rotatably adjustable because it is mounted on or is integral to a ball and socket gear-driven mechanism will not perform the covertly adjustable functions of the present invention. A Kajino camera appears to be a camera because it is rotatable in multiple planes and looks camera dome-like, even if it is mounted in a switch-box. Its bulbous cover is a giveaway.

The complex mechanical orienting works of the Kajino camera are not present, not necessary, not desirable in the present invention. After pivoting the present invention is set, and resumes its covert appearance as a bay window switch plate cover, whereas, Kajino's system – in contrast – looks like a surveillance camera dome before, during and after adjustment. It is the functional features of the present invention that allow the easy adjustment and the covertness after adjustment.

The point of the present invention is to have a camera that is covert, because a) it is mounted in a bay window switch box and b) the device only pivots in the horizontal plane once mounted. The device therefore maintains its vertical orientation during and after pivoting. The bay window shape corresponds to this range of pivoting. These advantages of the bay window are shown in the Specification, namely that "the bay window frame can be pivoted back and forth to orient the surveillance device toward an entrance to a room in which the switch box is mounted and then locked in the selected position by engagement of the bay window cover plate with the bay window frame front during attachment of the bay window cover plate to the switch box."

In none of the prior art such as Lin *re* facial recognition or Sergeant re shutter control is there disclosed the covert yet horizontally adjustable functionality of the present invention, nor would it be obvious in light of those prior patents, in combination Kajino, to come up with the bay window frame and cover locking mechanism to perform these functions.

#### AMENDMENT

In the appended revised Claim 1, the words "horizontally" and "the bay window's vertical orientation being defined upon mounting of the switch box and remaining constant during and after pivoting of the bay window for horizontal orientation" have been added to emphasize this key difference and inventiveness over Kajino.

It is submitted that the enclosed amended Claim 1 and its dependent Claims 2 through 12 would therefore be allowable as well as Claim 12



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Applicant, per Paul D. Gornall

**ROTATABLE BAY WINDOW SWITCH BOX SURVEILLANCE CAMERA AND  
ILLUMINATOR FOR FACIAL RECOGNITION**

**[Amended] CLAIMS**

**I claim:**

**I [Amended] A rotatable bay window switch box surveillance camera and illuminator system suited for facial recognition comprising:**

- a) a partially rotatable bay window frame mounted within a switch box;**
- b) a surveillance device mounted within the frame;**
- c) a bay window cover plate;**

**in which the bay window frame can be pivoted back and forth horizontally to orient the surveillance device toward an entrance to a room in which the switch box is mounted and then locked in the selected position by engagement of the bay window cover plate with a the bay window frame front during attachment of the bay window cover plate to the**

switch box, the bay window's vertical orientation being defined upon mounting of the switch box and remaining constant during and after pivoting of the bay window for horizontal orientation.

2. The rotatable bay window switch box surveillance camera and illuminator system of claim 1, in which the switch box is a standard electrical switch box adapted for mounting adjacent to an electrical light switch at an entrance to a room at a typical chest height location for users of the room, and the bay window cover plate resembles a decor motion detector switch cover and conceals the surveillance device.
3. The rotatable bay window switch box surveillance camera and illuminator system of claim 1, in which the surveillance device is a camera.
4. The rotatable bay window switch box surveillance camera and illuminator system of claim 1, in which the surveillance device is an illuminator.
5. The rotatable bay window switch box surveillance camera and illuminator system of claim 1, in which the surveillance device is a camera and illuminator, the camera is mounted in a camera compartment of the bay window frame, the illuminator is mounted in a illuminator compartment of the partially rotatable bay window frame, and both camera and illuminator can be pivoted back and forth with the frame prior to locking in position, for illumination of a scene at which the camera is pointed.

6. The rotatable bay window switch box surveillance camera and illuminator system of claim 5, in which the camera compartment is separated from the illuminator compartment by a floor that seals light from the illuminator compartment from entering directly to the camera compartment, the light being directed out a pane of the bay window cover plate for reflection from the scene and return to the camera for imaging of the scene.

7. The rotatable bay window switch box surveillance camera and illuminator system of claim 1, in which the surveillance device is integrated with a video processing system having facial recognition software, which can analyze various features of a face of a person under surveillance and match them with known features of identified people to the point of identification of a person entering the room.

8. The rotatable bay window switch box surveillance camera and illuminator system of claim 1, in which the surveillance device is integrated with a video processing system having facial recognition software, which can analyze various features of a face of a person under surveillance and categorize them in a database for later comparisons or elimination of suspects having similar or different facial characteristics to or than those recorded.

9. The rotatable bay window switch box surveillance camera and illuminator system of claim 1, in which the surveillance camera is integrated with a video processing system that causes sequential shuttering variations by the surveillance device in order to capture a variety of

exposures of the light information from a face, together with software that discards the less informative exposures and proceeds with more informative exposures.

10. The rotatable bay window switch box surveillance camera and illuminator of claim 1, in which the surveillance device is integrated with a video processing system which has the surveillance device take a series of normal exposures, overexposures, and underexposures by varying a camera's shutter speed or opening, to accommodate unpredictable effects of varying ambient light together with light from an illuminator on faces or other objects sought to be recognized.

11. The rotatable bay window switch box surveillance camera and illuminator of claim 10, in which the surveillance camera is integrated with a video processing system having facial recognition software, which gives feedback to increase the variation in exposure if facial recognition is poor and to decrease the variation in exposure if facial recognition is good.

12. The rotatable bay window switch box surveillance camera and illuminator of claim 2, in which:

a) the surveillance device is a camera and illuminator, the camera is mounted in a camera compartment of the bay window frame, the illuminator is mounted in a illuminator compartment of the partially rotatable bay window frame, and both camera and illuminator can be pivoted back and forth with the frame prior to locking in position, for illumination of a scene at which the

camera is pointed;

- b) the camera compartment is separated from the illuminator compartment by a floor that seals light from the illuminator compartment from entering directly to the camera compartment, the light being directed out a pane of the bay window cover plate for reflection from the scene and return to the camera for imaging of the scene;
- c) the surveillance device is integrated with a video processing system having facial recognition software, which can analyze various features of a face of a person under surveillance;
- d) the surveillance camera is integrated with a video processing system that causes sequential shuttering variations by the surveillance device in order to capture a variety of exposures of the light information from the face, together with software that discards the less informative exposures and proceeds with more informative exposures;
- e) the video processing system has the surveillance device take a series of normal exposures, overexposures, and underexposures by varying the surveillance camera's shutter speed or opening, to accommodate unpredictable effects of varying ambient light together with light from the illuminator on faces or other objects sought to be recognized;
- f) the video processing system has facial recognition software, which gives feedback to increase the variation in exposure if facial recognition is poor and to decrease the variation in exposure if

facial recognition is good.